TECHNICAL BOOK REVIEW INDEX

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JULIA C. WALLACE, *Editor*

Volume 16 **December, 1950** **Number 10**

THE purpose of the Technical Book Review Index is primarily to identify reviews in current scientific, technical, and trade journals; secondarily, when feasible, to quote from these reviews. In the evaluation of scientific and technical books, reviews, constitute the best existing source of information. The service of the Technical Book Review Index is thus in the field of evaluation, rather than in competition with existing publications which announce new and forthcoming books, list books by subjects, or supply bibliographic information. Each quotation immediately follows the name of the journal from which it is taken. Obviously, these brief extracts, detached from the context, must not be accepted as conclusive. Except for the correction of obvious errors, the bibliographic information is as given in the reviews. It is, therefore, in many cases incomplete and in some cases probably inaccurate.

American Medical Association. Handbook of physical medicine and rehabilitation. 573p. 1950. Blakiston, Philadelphia, $4.25.

Occupational therapy & rehabilitation, Oct. 1950, p.281. ⅔ p.

"Consists of 30 chapters, 25 of which appeared as special articles during the past too many years, in the *Journal of the American Medical Association.* Most of the chapters are well written, in fact, a few of them discuss aspects of physical medicine more completely than can be found elsewhere . . . This is an anthology rather than a handbook . . . This book belongs in the library of all physiatrists." *S. L.*

Apple, James M. Plant layout and materials handling. 372p. 1950. Ronald, New York, $5.

Plant, Oct. 1950, p.64. ¼ col.

"Written to meet the need for a comprehensive yet concise single volume showing how to develop the most efficient layouts of equipment and operating and service facilities, this book presents the fundamentals of plant layout from an engineering standpoint without becoming too much involved in the technical features of equipment design and construction . . . Profusely illustrated with photographs, layouts, and charts."

Bailey, Alton E. Melting and solidification of fats. 357p. 1950. Interscience Publishers, New York, $7.

Canadian chemistry and process industries, Sept. 1950, p.752. ½ col.

"All available material on the subject has been collected from rather widely scattered sources for inclusion in this book . . . Written for the practising oil and fat chemist or technologist."

Chemical engineering, Nov. 1950, p.308. ½ col.

" 'Written primarily for the practicing oil and fat chemist or technologist.' First object in preparing the volume has been to collect all available material on the subject, from widely scattered sources. Second object has been to correlate and interpret the experimental data . . . Attractively bound and it will unquestionably prove to be a useful reference volume for anyone working in the field of animal and vegetable fats and oils." *G. W. M.*

Barnett, Anthony. The human species; a biology of man. 280p. 1950. MacGibbon, London, 18s.

Discovery, Oct. 1950, p.339. 1⅝ col.

" 'This book describes some of the contributions that biological knowledge can make to contemporary problems' . . . The writing is lucid and readable, though at times the style verges on the uncompromising and dogmatic. The text is up to date to a marked degree, and it is well related to the general reader's everyday experience. The results of biological inquiry in relation to conception and growth, human evolution, racial differences, sex-differences, food production, health and population statistics are all presented in a lively and relevant fashion . . . If this book is widely and critically read . . . it will contribute greatly to the development of an informed public opinion about the use and abuse of biology in the world today." *M. H. C.*

Eugenics review, Oct. 1950, p.160. 3⅛ col.

"This broad survey of mankind from the viewpoint of a twentieth-century scientific worker is addressed to the general reader; more specifically to the general reader who has not had a basic education in the natural sciences. It assumes no more therefore than literacy, membership of contemporary society and a stimulable interest in man and in all his biological and social accoutrements . . . This is a good book and can be much improved, probably at the expense of a slight expansion, in later editions; with a few shifts of emphasis, a greater economy of anecdote and topical reference, some cross-referencing, and with more specific references from the text itself to fuller introductory works to the subjects of each section, this volume could become the standard popular introductory biology of man which it aspires to be." *David Lawson.*

Bateman, John H. Materials of construction; a textbook for students of engineering. 568p. 1950. Pitman, New York, $6.50.

ASTM bulletin, Oct. 1950, p.19. 1⅛ col.

"We believe this new book is an outstanding publication. Any engineering student who spends some time conscientiously with the publication will have an excellent broad-range knowledge of materials, and particularly will be able, when he gets out into industry, or wherever he may be, to go to pertinent sources of current information. The book is well printed with numerous illustrations."

Military engineer, Nov.-Dec. 1950, p.505. ⅓ col.

"Profusely illustrated by drawings, photographs and sketches, and with numerous tables and practical problems, this excellent text is designed for the under-graduate student, for the young engineer, and particularly for the inspector of construction."

Boyd, James E., & Ott, P. W. Mechanics; a textbook for engineers. Ed.3. 422p. 1950. McGraw, New York, $4.50.

Product engineering, Oct. 1950, p.214. ½ col.

"Much of the material appearing in the earlier editions has been rewritten. The former chapter on Application of Forces has been extended . . . A new chapter on the Method of Work has been added . . . The chapter on Graphical Methods has been enlarged . . . In addition to retaining many of the former exercise problems, numerous new problems are scattered throughout the text. These latter problems are generally more difficult of solution than are the original ones . . . Many new illustrations have been added."

Bridges, Milton A., & Mattice, M. R. Food and beverage analyses. Ed.3, revised. 412p. 1950. Lea, Philadelphia, $5.50.

Journal of the American Medical Association, Sept. 2, 1950, p.77. ½ col.

"Those who are familiar with the previous editions of this excellent collection of nutritional data and information will welcome the fact that Miss Mattice has enlarged the preceding edition and brought it up to date . . . The nutritionist and dietitian, as well as the biochemist and student, should certainly include this volume in his library."

Brooks, Benjamin T., & Dunstan, A. E., ed. Science of petroleum. v.5. pt.1: Crude oils; chemical and physical properties. 200p. 1950. Oxford, New York, $11.

Oil and gas journal, Nov. 2, 1950, p.89. ¼ col.

"The contributions in this volume fall into two classes, those which deal with subjects and processes which are new in the industry since 1937, and those which supplement and bring up to date subjects which were thoroughly covered in the earlier volumes . . . Treats the crude oils of the United States, Venezuela, Saudi Arabia, Bahrein Island, and the Middle East."

Petroleum processing, Oct. 1950, p.1111. 1⅛ col.

"Deals with chemistry, physics, and chemical engineering of petroleum. It is planned to issue two further parts which will complete the work of bringing up to date this section on the subject. Technical and scientific literature on petroleum is scattered through a large number of excellent technical journals. It is the purpose of the editors of this book to bring together this record of the past 12 years by means of contributions by authors of highest standing who are able to review and evaluate this mass of literature."

Bush, George P., & Hattery, L. H., ed. Scientific research; its administration and organization. 190p. 1950. American Univ. Press, 1901 F St., N.W., Washington, D. C., $3.25.

Aeronautical engineering review, Nov. 1950, p.77. 1⅛ col.

"There are 23 chapters grouped into six major divisions, as follows: Part One: Research Organization, Part Two: Administrative Process, Part Three: Research Personnel, Part Four: Aids to Research, Part Five: Research Product, and Part Six: Conclusion. The contributors include representatives of the country's top-drawer scientists and research administrators . . . The work has been unusually well organized for getting the most out of it, either by the straight-through reading technique or by bits-and-pieces study . . . Certainly one of the best contributions to the writings on the art and science of research management and is highly recommended to all those who are, or think they will be, involved in this important activity." *C. C. Furnas.*

Chemical and engineering news, Nov. 20, 1950, p.4122, 4124. ½ col.

"Adapted from the proceedings of the First Institute on Administration of Scientific Research and Development presented at Washington, D. C., by the American University with the cooperation of the National Research Council and the American Association for the Advancement of Science. The book is characterized by the informality and frankness of the seminar method, thereby giving succinct insights into main aspects of the subject from the personal experience and philosophy of the well chosen contributors, the authors of the 23 chapters . . . This published record is a good beginning. It should induce a continuing purpose to cover comprehensively and adequately the important sectors of a most essential area of scientific activity." *William A. Hamor.*

Buttrey, D. N. Plasticisers. 165p. 1950. Cleaver-Hume, London, 18s. net.

Chemical trade journal and chemical engineer, Sept. 29, 1950, p.740. ⅔ col.

"The growing technical literature of the plastics industry is not particularly rich in specialised publications on plasticisers, and for this reason alone Mr. Buttrey's work will be welcomed by seekers for information on this topic . . . Mr. Buttrey . . . has carried out a very useful piece of work with great care."

Campbell, James S., jr. Casting and forming processes in manufacturing. 536p. 1950. McGraw, New York, $5.

American machinist, Nov. 13, 1950, p.250, 252. ¼ col.

"Written for mechanical engineering students, to acquaint them with all of the casting processes, the molding and forming of plastics, powder metallurgy, rolling, forging, sheet-metal working and punch-press operations. Machine-shop and welding processes are not included . . . Well written and illustrated. Plants operating training courses for personnel will undoubtedly want to examine the material as a

possible text. Individuals who wish to broaden their understanding of basic processes should obtain from this work a sound foundation for further study."

British steelmaker, Nov. 1950, p.598. ⅜ col.

"It is unashamedly a text-book, and a brief glance at the contents suggests that it is a very thorough one at that. The purpose of the text is to describe all the casting processes, plastics moulding and forming, powder metallurgy, rolling, forging, sheet metal working and punch press operations . . . For engineers entering the machine-design field in particular, this book will provide a wealth of background detail possibly not obtainable elsewhere under one cover. The inclusion of information on recent advances in the casting and forming of metals by American manufacturers gives it a special interest to the student in this country."

Chamberlain, Henry T. C.P.A. coaching course. 2v. 1950. Prentice-Hall, New York.

v.1. Problems. 298p. $4.50.

v.2. Solutions. 397p. $4.50.

Accountants digest, June 1950, p.242. ½ col.

"According to the publishers, this course has prepared more successful C. P. A. examinees than any other. From start to finish it is organized for maximum retentivity, with planned progress, timed problems, and complete answers to all questions."

New York certified public accountant, Nov. 1950, p.636. ¾ col.

"Undoubtedly the commonest cause of failure to pass the C.P.A. examinations is the lack of proper preparation and training in working under pressure. The Course under review has been designed to overcome this obstacle by providing the candidate with well-organized, timed problems which will enable him to acquire facility in analyzing and interpreting the problems and presenting his solution in a logical manner . . . The selection of the problem material from past examinations is good and its presentation excellent . . . There is no doubt in the mind of the reviewer that a candidate following the advice of the author and conscientiously applying himself to the completion of the course will bring himself to a degree of 'sharpness' which should augur well for his success." *Frank A. Dunn.*

Chase, Herbert, ed. Handbook on designing for quantity production. Ed.2. 564p. 1950. McGraw, New York, $7.50.

Product engineering, Oct. 1950, p.230, 232. 1 col.

"Revamped and re-edited to bring . . . [the book] up to date in terms of modern industrial requirements, to make it easier to use, and to make it more practical . . . While Mr. Chase is both editor and author of many of the 21 chapters . . . he also has called upon specialists in industry and the educational field to prepare several chapters . . . For the designer who is not well acquainted with all of the various production processes, the book is a must . . . It necessarily is general in nature in many respects, and cannot be used as a reference book by a designer of specific parts."

Clark, Frances H. Metals at high temperatures. 372p. 1950. Reinhold, New York, $7.

Machinery (New York), Oct. 1950, p.252. ⅜ col.

"The most recent available data on the properties of metals at extremely high temperatures is presented in this book for the use of the design engineer. Up to the present, such data have not been available in a single source."

Materials & methods, Oct. 1950, p.168, 170. ½ col.

"Ever since World War II engaged metallurgical interest in the gas turbine, data on the properties of metals at elevated temperatures have been forthcoming at a rapid rate. These data have now been assembled and organized by the author, a noted woman metallurgist, into the first American book on high temperature metallurgy . . . Intended for all those who are concerned with the engineering and metallurgical aspects of high temperature service, particularly in reference to turbojet airplane engines where high temperature alloys play a critical role [sic] . . . All metallurgists and mechanical and materials engineers should find this text an abundant source of valuable reference information."

Product engineering, Nov. 1950, p.232, 234. ⅜ col.

Welding journal, Oct. 1950, p.936. ½ col.

"Designed primarily to cover heat-resistant alloys and special alloy steels but includes other metals such as aluminum, lead and magnesium alloys . . . Intended for all who are concerned with the engineering and metallurgical aspects of high temperature service, particularly in reference to turbojet airplane engines where these alloys are playing a critical part . . . All metallurgists and mechanical engineers will welcome its abundance of easy reference information."

Colvin, Fred H., & Stanley, F. A. Gear cutting practice. Ed.3, revised. 532p. 1950. McGraw, New York, $4.75.

Engineer, Sept. 29, 1950, p.328. ⅞ col.

"Built up largely from the sort of information published in the catalogues and instruction books of American manufacturers of gears, gear testing equipment and gearcutting machinery . . . Written and illustrated almost exclusively around American practice, but one feels that it would have given a better picture of the present state of gear manufacturing practice had it been a little more international in character."

Machinery (New York), Oct. 1950, p.252. ¼ col.

"Completely revised to bring it up to date, the present edition including recent data on carbide-tipped hobs; hobbing speeds and feeds; involute splines; shaving and lapping of gear teeth; and inspection records."

Mass production, Oct. 1950, p.93. ⅓ col.

"Firstly the book has been largely rearranged and the material grouped under ten logical headings according to the gear type, etc.: this certainly makes the data more accessible. Secondly much new material has been added consisting principally of new data on carbide-tipped hobs, hobbing speeds and feeds; new American bevel-gears; new data, involute splines; new shaving and lapping methods of finishing gear teeth; and new inspection methods."

Conant, James Byrant, & Blatt, A. H. Fundamentals of organic chemistry. 413p. 1950. Macmillan, New York, $4.

Journal of chemical education, Oct. 1950, p.587. ⅝ col.

"A text for a brief course giving the main points, and in addition some excellent chapters on industrial and biological applications of organic chemistry. All this is presented in a most readable style . . . One has the feeling after reading this book that it is well balanced . . . Can be recommended as one of the best books of its kind today." *Arthur Furst.*

Crouse, William H. Electrical appliance servicing. 854p. 1950. McGraw, New York, $7.50.

Electrical merchandising, Nov. 1950, p.80. 2 col. including an illustration.

"Mr. Crouse . . . wrote the book so that men who are already servicing appliances might have detailed servicing information on earlier, as well as late-type, appliances, and as a textbook for students . . . Packed with photographs, charts and diagrams as well as informative text. Discussions of theory and principles are always simplified by straightforward language and simple comparisons with observable everyday happenings." *James Bolger.*

Electrical world, Nov. 6, 1950, p.170. ¼ col.

"Not written for the man who is 'handy around the house', although it will be useful to him if he really is . . . The purpose of the book is to inform servicemen on appliance construction and operation and on correction of troubles."

Davison, Marguerite Porter. Handweaver's pattern book. Revised edition. 215p. 1950. The Author, Box 299, Swarthmore, Pa., $7.50.

Occupational therapy & rehabilitation, Oct. 1950, p.285. ⅓ p. including another review.

"Discusses techniques applicable to the four-harness loom . . . Lists instructions which range from Abigail Fairchild's Legacy to Zig Zag Twill and the excellent photographs and line drawings leave nothing to the imagination. Mrs. Davison is an artist but sufficiently realistic to include a *Table of Yarn Sizes* and an explanation of weaving system. A few chapter headings will indicate the scope of this book: twills, huck-a-back, diamonds, crackle, and lace weaves." *S. L.*

Devine, Carl T. Cost accounting and analysis. 752p. 1950. Macmillan, New York, $5.

N.A.C.A. bulletin, Oct. 1950, *section 2,* p.231. ⅖ col.

"The first section emphasizes cost determination and covers process and job costing, following discussion of 'manufacturing accounting' and departmentalization. The second section, approached through the topic of system design, stresses cost control and includes a group of chapters on standard costs. The third section, consisting of ten chapters and opening with one on concepts of cost, is devoted almost wholly to the uses of costs. Profit planning, separation of fixed and variable costs, selling cost analysis, and costs and pricing policy are among matters treated."

Dougherty, J. M., & Lamberti, A. J. Textbook of bacteriology. Ed.2. 491p. 1950. Mosby, St. Louis, $5.75.

American journal of public health, Oct. 1950, p.1326. ⅔ col.

"Contains 40 chapters . . . dealing with the topics and in the brief manner, usual in many texts for beginning students of diagnostic microbiology. The list of subject headings includes history . . . microscopy . . . yeasts and molds . . . apparatus and methods . . . etc. . . References to literature, largely prior to 1929, accompany each chapter. There are 141 figures, mostly line drawings and diagrams. There are an Introduction by Dr. John A. Kolmer, a table of contents, and an index . . . Well and attractively printed and bound." *Martin Frobisher, jr.*

Drummond, D. G., ed. Practice of electron microscopy. 141p. Royal Microscopical Soc., London, 21s. unbound.

British journal of applied physics Oct. 1950, p.271. ½ col.

"Will be of great value to all new and potential electron microscopists who will now be able to draw more readily on the experience of those who have learned 'the hard way' . . . Will be no less valuable to the experienced electron microscopist who, in this age of specialization, cannot hope to have intimate knowledge of the ultimate practical details of all the techniques . . . Extremely well produced and contains many excellent reproductions of electron micrographs." *F. W. Cuckow.*

Dunstan, A. E. See Brooks, Benjamin T., & Dunstan, A. E., ed.

Ebeling, Walter. Subtropical entomology. 719p. 1950. Lithotype Process Co., 523 Folsom St., San Francisco, $8.

Journal of economic entomology, Aug. 1950, p.575. 1⅗ col.

" 'Subtropical Entomology' is a far too broad title for the subject matter that is presented in this volume. It is devoted entirely to fruit insects and among these only citrus is dealt with on a world-wide basis, the remainder comprising those occurring in California . . . Typographical errors are relatively few and errors of fact infrequent . . . A valuable source of information and guidance of all workers in this field." *C. P. Clausen.*

Faith, W. L., and others. Industrial chemicals. 652p. c1950. Wiley, New York, $8.

Chemical and engineering news, Nov. 13, 1950, p.4028. ⅗ col.

"The engineer who hopes to learn all the details of design or the industrial chemist who desires specific operating data will not be satisfied. The research chemist, the process development man, the market specialist, and the chemical executive will learn a great deal. The same thought applies to the student of chemistry or chemical engineering who contemplates an industrial career; here he will find the reactions of his inorganic and organic courses expressed briefly, clearly in realistic terms with living, practical data." *William A. Mosher.*

Chemical engineering, Sept. 1950, p.251. 2½ col. including illustrations.

"A real contribution to the literature as well as a nice-looking book. The production, process and economic data will be really useful to a lot of people—in addition to vice presidents. It will be an ideal textbook for courses emphasizing the economic side of the chemical industry." *L. B. P.*

Journal of the American Oil Chemists' Society, Nov. 1950, p.28. ¾ col.

"Definitely not for the use of those who desire the complete technology and economics of

a material . . . Its main purpose appears to be as a reference, for general information on the products treated, that is, to obtain such data as would be normally secured by a rough preliminary survey of the literature and statistical information available on the product. It is a series of monographs in miniature for the chemicals treated . . . Will prove quite useful to those for whom a dictionary is inadequate and an encyclopedia too cumbrous." *John M. Weiss.*

Metal finishing, Nov. 1950, p.101. ½ col.

"A compilation of important information and statistics on the 106 most important industrial chemicals . . . The first book of its kind, and one that will be much used as a reference by the busy user, buyer, and seller of chemicals. The authors are to be complimented on a painstaking and thorough job." *W. A. R.*

Oil, paint and drug reporter, Oct. 9, 1950, p.40. ¼ col.

"A useful and a necessary compilation of technical and economic data, a combination which is of service to everybody who has anything to do with chemicals . . . A copy should be on every government desk that will have any connection with the control of chemicals. And one of its most beneficially resultful functions would be as a textbook in all chemical teaching."

Feller, William. **Introduction to probability theory and its application. v.1. 419p. 1950. Wiley, New York, $6.**

Journal of the Franklin Institute, Sept. 1950, p.274. ½ p.

"Aside from mathematicians, physicists and other scientists who encounter problems in modern communications theory, modern physics, and the probabilistic aspects of the biological sciences will find much reference material in this volume. Needless to say, the book can be used as a valuable reference work for professional and amateur gamblers." *S. Charp.*

Fenton, Carroll Lane, & Fenton, M. A. Worlds in the sky. 96p. 1950. Day, New York, $2.50.

Popular astronomy, Nov. 1950, p.476. ⅓ p.

"The authors have adopted the device of using a large part of many of the pages for pictorial representation. Thus the reader is instructed by illustration and text simultaneously. One's first impression in looking at this book is that it is intended primarily for children. It is, indeed, written so simply that children can comprehend it. But it is also suitable for grown up people who may never have given any attention to the night sky . . . A reading of this small volume and a study of the pictures in it will give anyone an introduction to the universe in which he is living, and he will find it an exhilarating experience." *C. H. G.*

Fink, Robert M., ed. **Biological studies with polonium, radium, and plutonium. 411p. 1950. McGraw, New York, $3.75. (National nuclear energy series; Manhattan project technical section, division VI, v.3.)**

Journal of chemical education, Oct. 1950, p.584. ½ col.

"This pioneering work is unusual in several respects, not the least of which is the vast amount of material collected by the combined efforts of many investigators over a relatively short period of time. One is immediately impressed with the great care the authors have taken to present their problems and sources of error and with the voluminous data that are included." *Miriam P. Finkel.*

Nucleonics, Oct. 1950, p.89. 1⅓ col.

"Divided into three parts: The first part has to do with the distribution and excretion of polonium and involves animal and human polonium metabolism. The second part is on the distribution and excretion of radium in rats, and includes a valuable review of the literature in radium toxicity and metabolism by H. G. Silverstein. The final part gives data on the toxicities of radium, polonium, and plutonium in rats, including a discussion by G. A. Boyd and R. M. Fink of the relative toxicities of the three elements in terms of total alpha-particle energy dissipated in the body." *Austin M. Brues.*

Frobisher, Marvin, jr. **Fundamentals of bacteriology. Ed.4, revised and enlarged. 936p. 1949. Saunders, Philadelphia, $5.50.**

United States armed forces medical journal, June 1950, p.716. 12 l.

"Excellent textbook for beginners in bacteriology . . . Every chapter has been rewritten at least in part and the material has been expanded and rearranged. Over 100 new pages have been added." *W. G. Brandstadt.*

Fuller, Gordon. **Plane trigonometry. 199p. 1950. McGraw, New York, $2.25.**

Commonwealth engineer, Aug. 1, 1950, p.25. ⅜ col.

"In writing this new textbook about an old subject, the author has set out to make the subject as understandable as possible to the reader, without outside assistance. Hence, discussions and explanations in this text are more complete than is usually the case. As a further aid to the thorough understanding of the subject, worked numerical examples illustrate each section, and many exercises for the reader are given, with answers to alternate problems."

Gesell, Arnold, and others. **Vision; its development in infant and child. 329p. 1949. Hoeber, New York, $6.50.**

Health news, Oct. 1950, p.9. ⅜ col.

"The authors do a service for pediatricians and others interested in eye care by pointing out so clearly how different the sense of vision is in the developing child from that in an adult. There is an interesting discussion of the behavior development of one child, blind at birth, up to the age of four years." *Franklin M. Foote.*

Public health nursing, Oct. 1950, p.578. 1⅓ col.

"The first report of the Yale Clinic of Child Development on its study of the patterns of visual behavior as they are transformed in orderly sequence through the stages of infancy, preschool, and school years . . . Dr. Gesell and his co-workers trace visual behavior from its genesis through the ninth and tenth years, describing overt behavior, visual skills, ophthalmological data for infancy, the preschool, and the school years." *Eveoleen N. Rexford.*

Gibbs, R. Darnley. **Botany; an evolutionary approach. 554p. 1950. Blakiston, Philadelphia, $6.**

Nature magazine, Nov. 1950, p.453. ¼ col.

"This text features the classical approach to the subject . . . The author follows the se-

quence of evolution from the simplest to the complex. Included is a wealth of material based on extensive travels in North America, Britain, Mexico, the Philippine Islands, Java, Malaya, and the Far East, also an excellent brief account of the development of plant physiology. Entirely new photographs and line drawings . . . are well integrated with the text. The modern, accepted classification of plants is followed, and an extensive and complete index is included for constant reference."

Goldberg, J. B. Fabric defects; case histories of imperfections in woven cotton and rayon fabrics. 371p. 1950. McGraw, New York, $6. (Textile technology series.)

Textile world, Oct. 1950, p.234, 236. ¼ col.

"Here, for the skilled technician, mill man, dyer, or finisher—for anyone who wants a better understanding of fabric imperfections—is a practical guide packed with actual case histories of defects in textile materials. Also given are explanations of the contributing factors and suggestions for analyses. Superb original photomicrographs stud the pages . . . A glossary of terms, reference bibliography, appendix, and index complete the survey nicely."

Grant, Eugene L. Principles of engineering economy. Ed.3. 623p. 1950. Ronald, New York, $5.

Industry and power, Nov. 1950, p.121. ⅛ col.

"More than two-thirds of this book has been rewritten . . . The reading matter has been improved through a more decided presentation of fundamental principles. Emphasis is placed on two important factors; prospective differences between alternatives that are relevant in their comparison and the fundamental question regarding a proposed investment in capital goods. Numerous examples are included . . . The information contained . . . is cross-referenced, and answers to economic problems can be found readily."

Hague, B. Introduction to vector analysis for physicists and engineers. Ed.4. 122p. 1950. Wiley, New York, $1.25. (Methuen's monographs on physical subjects.)

Review of scientific instruments, Oct. 1950, p.871. ½ col.

"Designed as an introduction to the principles of vector analysis for physicists and engineers, who are interested in obtaining a familiarity with vector techniques and an ability to use them in their own fields. The subject matter is well chosen and well organized, and the presentation is exceptionally clear . . . The book is more likely to satisfy the needs of engineers than of physicists . . . Because of its clarity and readability this monograph will continue to be a very valuable aid in the teaching of vector analysis." *Simon Pasternack.*

Hahn, Otto. New atoms. 184p. 1950. Elsevier, New York, 12s. 6d.

Chemical age, Oct. 21, 1950, p.576. 1 col.

"This small and relatively expensive book . . . skates over the more burning aspects of the subject and is little better than a rather perfunctory summary of the work done in this field, together with a little of the fundamental theory underlying the 'making' of new atoms . . . The last part . . . which deals with Professor Hahn's reminiscences, is by far the best. It is most interesting and takes the reader 'behind the scenes.' For the remainder, greater care in presentation, clearer English and a less jerky style, would have considerably improved the work, and perhaps made it worthy of so distinguished a scientist as Professor Hahn." *P. M.*

Hammonds, Carsie. Teaching agriculture. 353p. 1950. McGraw, New York, $3.50.

Extension service review, Oct. 1950, p.183. ¾ col.

"Although this book is designed for teachers of agriculture in classroom situations, it has much of value to extension workers . . . A book which expresses in a very understandable way many aspects of teaching. Extension workers will find this book useful as a guide to improvement in extension teaching." *Cannon C. Hearne.*

Harries, R. Hand tools for wood and metal work. 96p. 1950. Bell, London, 5s. net.

Mechanical world, Oct. 20, 1950, p.370. ¼ col.

"Intended as an introductory work this book should serve its purpose well for not only are the descriptions and illustrations of the various tools particularly clear, but the instructions for using and caring for them are soundly based and should contribute much to the reader's acquisition of skill."

Hartsuch, Bruce E. Introduction to textile chemistry. 413p. 1950. Wiley, New York, $4.75.

Chemical and engineering news, Nov. 27, 1950, p.4208. ⅝ col.

"Intended for a textbook for college use, the treatment assumes a background of theoretical and applied chemistry on the part of the reader although the first two of the 13 chapters review certain of the fundamentals of chemical calculations and of organic chemistry respectively. The emphasis throughout is on the fibers rather then [sic] on reagents . . . A list of questions concludes each chapter and a glossary of terms concludes the book as a whole. The book is not nearly as comprehensive as Volume V of the High Polymer Series, nor as expensive . . . It is an easily readable, if perhaps at times, a sketchy treatment of a very broad subject and adds a needed volume to the American literature . . . Should find a real place, particularly in the educational field of home economics . . . It is an *introduction* to textile chemistry." *E. R. Schwarz.*

Modern plastics, Nov. 1950, p.142. ⅝ col.

"Designed especially for the student and teacher who are familiar with the chemical foundations of the textile field, this book is also intended for the technologist and specialist whose knowledge of chemistry is limited. It aims to give those interested in this subject the necessary background for an understanding of the content, construction, and behavior of textiles."

Harty, John, & Weber, A. H. How to solve problems in general physics. 112p. 1950. Educational Publishers, St. Louis, $2.25.

American journal of physics, Sept. 1950, p.403. ½ col.

"This book—covering mechanics, hydrostatics, heat, and thermodynamics—has been prepared as an aid to students in the first semester of

college physics . . . Should prove to be satisfactory when used by students having limited time available for study. For other students, however, this book may be sufficiently attractive to offer the textbook considerable competition." *G. P. Brewington.*

Harvey, Charles E. Spectrochemical procedures. 402p. 1950. Applied Research Laboratories, Glendale, Calif., $7.50.

Journal of the Optical Society of America, Oct. 1950, p.696. ½ col.

"A refreshing and authoritative discussion on qualitative and quantitative emission analysis with particular emphasis on the applied aspects . . . Although published by one of the leading manufacturers of spectrochemical analytical equipment, the author maintains an impartial position with regard to equipment so that the text is equally important to all workers whether they have been equipped by the sponsor or other manufacturers. Thus considerable prestige is accorded the discussion . . . A distinct contribution to the art and will find a welcome audience in most spectrochemical laboratories." *Wallace R. Brode.*

Hattery, L. H. See Bush, George P., & Hattery, L. H., ed.

Haurowitz, Felix. Progress in biochemistry; a report on biochemical problems and on biochemical research since 1939. 405p. 1950. Interscience Publishers, New York, $7.50.

Canadian chemistry and process industries, Sept. 1950, p.744. ½ col.

"Discusses the results of biochemical research since 1939 and is directed particularly to students and teachers of science, of medicine and of pharmacy . . . Dr. Haurowitz has tried to explain the new advances by starting from older well-known facts. His book is also an attempt to report on the whole field of biochemical research, even on research work on sidepaths of biochemistry, if of interest for general biochemistry."

Journal of the American Chemical Society, Oct. 1950, p.4845. 1⅛ col.

"The objective of this book is to inform students and teachers of science as well as workers in cognate, particularly medical, fields concerning the advances made during a decade in which biochemistry has experienced unprecedented development . . . The author has . . . made a notable contribution in covering so wide a field so concisely . . . Many . . . will find . . . this . . . a very useful source of reference and an introduction to the salient facts over a very wide field of biochemical knowledge. The style is clear and concise, most of the chapters being well supported by references." *F. C. Steward.*

Hawes, H. Gordon. Equivalent valves. 175p. Hooper Pub. Co., 545 Sansome St., San Francisco, $15.

Canadian machinery and manufacturing news, Oct. 1950, p.204. ⅛ col.

"A manual of interest to specifiers, buyers, and users of valves, listing the valves of 18 leading manufacturers. All information has been checked by each of the manufacturers . . . Intended as a ready reference for engineers, purchasing agents and engineering personnel who develop specifications or make purchases of valves . . . Well indexed to enable the user to quickly locate the desired information."

Plant engineering, Nov. 1950, p.98, 100. ⅜ col.

"The answers to many of your valve questions are compiled in this remarkable manual of equivalent values . . . The manual is broken down into five sections, as follows: brass, cast iron, cast steel, forged steel and bar stock valves. Each of these sections in turn covers the various valves of manufacturers, giving such information as catalog number, stem, bonnet, disc, pack under pressure and connection. The material . . . should prove very helpful to the plant engineer contemplating purchase or replacement of valves or determining which valve could be used in place of present valve."

Power, Nov. 1950, p.170, 172. ⅛ col.

"This list is especially useful to men who buy or select a large number of valves as part of their job. It reduces selection time and brings many facts from a large number of catalogs under one cover. By paying an annual charge of $6 the list is automatically kept up-to-date."

Purchasing, Nov. 1950, p.236. ⅖ col.

Hawking, Frank, & Lawrence, J. S. The sulphonamides. 398p. 1950. Lewis, London, 42s.

Manufacturing chemist, Oct. 1950, p.447. 1¼ col.

"Principally for the use and guidance of medical practitioners, but there are useful chapters on the history and discovery of the sulpha drugs, on the chemistry . . . and on the mode of action . . . The book can be compared with the well-known American work by Spink . . . The authors are both medical men, and while the book is excellent it is mainly for the clinician." *M. A. Phillips.*

Heinrich, Herbert W. Industrial accident prevention; a scientific approach. Ed.3. 470p. 1950. McGraw, New York, $5.

Factory management and maintenance, Nov. 1950, p.266. 12 l.

"Puts at your finger-tips modern safety methods that can help you avoid the expense and wasted hours caused by industrial accidents. You'll find out how to analyze your plant's accident situation, and how to set up a comprehensive safety program to meet that situation."

Heiss, Elwood D., and others. Modern science teaching. Revised edition of "Modern Methods and Materials for Teaching Science". 462p. 1950. Macmillan, New York, $4.50.

Journal of chemical education, Oct. 1950, p.588. ½ col.

"The material . . . is excellent . . . These notable authors have written a noteworthy book in the field of science education." *Greta Oppe.*

School science and mathematics, Nov. 1950, p.674. ⅓ p.

"The text has two purposes: (1) to serve as a textbook for methods of teaching science; and (2) to serve as a source book for teachers of science, supervisors of science and science educators, at whatever level they may be working, who wish to keep abreast of present trends in the teaching of science. It accomplishes the first purpose well and the second as adequately as any text can at the time of printing . . . The authors have made a thorough revision of their older text." *Kenneth E. Anderson.*

Scientific monthly, Aug. 1950, p.132. 1¼ col.

"The authors' preface announces this book's twofold purpose: 'To serve as a textbook for courses in methods of science teaching' and as a

'source book' for those 'who wish to keep abreast of present trends in science teaching' . . . In general, the authors have prepared a book of worth for the two purposes set forth . . . They have been handicapped by the constant limitations imposed when they had to make their treatment general, i.e., usable for all science teaching in the public schools." *Herbert R. Smith & B. Clifford Hendricks.*

Heldt, P. M. Torque converters or transmissions. Ed.3, revised. 438p. The Author, Nyack, N. Y., $6.

Applied hydraulics, Nov. 1950, p.49. ½ col.

"This standard treatise on the major types of clutches, couplings, transmissions and torque converters is the first reference book any engineer whose work is in this field should have within reach . . . New materials, especially in the chapters on hydro-kinetic torque converters and automatic stepped transmissions, has [sic] been added. The difficult job of providing a proper balance of basic principles, distinctive design features and practical application and maintenance ideas has been well handled. Chapters on friction, over-running and automatic clutches, hydraulic and electric couplings, geared, planetary, hydrostatic, differential, inertia-type, variable-throw and pneumatic transmissions and the hydro-kinetic torque converter are included. A number of foreign designs, particularly British, are also shown." *P. L. R.*

Hetényi, Miklós I., ed. Handbook of experimental stress analysis. 1077p. 1950. Wiley, New York, $15.

Engineering news-record, Oct. 5, 1950, p.44, 47. ⅔ col. including another review.

"Represents an attempt by 31 outstanding stress analysts to provide a reference book covering all important experimental methods for measuring stresses and strains. Besides describing the various techniques, the authors present the mathematical background necessary to a full understanding of the methods."

Marine engineering and shipping review, Nov. 1950, p.78. ⅓ col.

"For the first time, the most important authorities in the field have prepared a definitive work on the subject . . . They have gathered all the existing experimental methods for the determination of mechanical strength. Giving specific practices as well as theory, this handbook is invaluable in furnishing heretofore scattered incomplete material in one convenient and comprehensive book."

Hill, A. Bradford. Principles of medical statistics. Ed.5. 282p. 1950. Lancet, London, 10s. 6d.

Archives of industrial hygiene and occupational medicine, Sept. 1950, p.364. ⅔ p.

"Little new material is incorporated in the body of the book, which wisely remains one of the shortest competent and comprehensive treatments of the field of statistics in medicine and hygiene, as well as one of the best. A few paragraphs have been added to help clear the vexing questions involved in setting up a well controlled test; several minor errors have been eliminated, and the material dealing with the median has been clarified and corrected. The main change . . . is the inclusion of a set of 25 exercises (and answers) dealing with procedures discussed in various chapters." *Hugo Muench.*

Eugenics review, Oct. 1950, p.168. ½ col.

"Can be unreservedly recommended to anyone without statistical training and anxious to acquire either a basic understanding of statistical thought or an equipment of simple and practical techniques . . . Many examples are drawn from medical data . . . Anyone who works in a biological field would find the subject matter and presentation entirely to his taste . . . Not suitable for reference purposes; and if . . . one wished to look up a formula for the standard error of the difference between two standard deviations he would have to have recourse to a weightier tome." *Eliot Slater.*

Journal of the Royal Sanitary Institute, July 1950, p.430. ⅓ p.

"The contents of this volume, which describes in simple straightforward language the principles and methods of statistical analysis, shows the way in which investigations should be planned and how the data collected may be analysed in order to yield fruitful results. It is not the author's aim to make statisticians of his readers, but to guide them in the preparation and proper use of the statistical method of analysis in order that fallacious conclusions are not drawn from inaccurately treated data."

Houldridge, L. Basic electricity for the million. 94p. 1949. Crampton & Sons, Ltd., Sawston, Cambridge, England, 6s.

Electrical review, Aug. 25, 1950, p.330. ⅔ col.

"Mr. Houldridge has attempted to . . . combine a thorough explanation of simple basic quantitative principles with a certain amount of popular descriptive matter . . . The author's aim is praiseworthy, but he has achieved only partial success . . . The book would have been improved by the provision of an index." *G. W. S.*

Hufford Machine Works, Incorporated. Principles of stretch-wrap forming. 87p. The Company, 207 N. Broadway, Redondo Beach, Calif., $5.

Product engineering, Nov. 1950, p.228, 230. ¾ col.

"Attempts to clarify many ideas and to include as much tooling information and as many actual operating examples as are available at present . . . Presents the theory, advantages and uses of stretch-wrap forming equipment in modern aircraft manufacture, together with detailed tooling procedures and form die construction data . . . Will be of great help to all foremen and superintendents in metalworking departments of aircraft plants, as well as to their executives. Courtesy copies will be sent to all qualifying personnel. The book, however, is not for general distribution."

Hutt, F. B. Genetics of the fowl. 590p. 1949. McGraw, New York, $6.50. (McGraw-Hill publications in the agricultural sciences.)

Nature, Oct. 14, 1950, p.622. 1 col.

"An exhaustive compendium on the genetics of the domestic fowl has been wanting for a long time. The author now provides one which is in the same noteworthy class as the works of Grüneberg on the rat and Stern on man. This book is likely to be the standard work on the subject for many years . . . Should be used as a work of reference by geneticists, animal breeders and general biologists. There are a few misprints." *S. C. Harland.*

Jacobsohn, W. Diamond tool patents. v.3s: Truing of grinding wheels. 45p. Industrial Diamond Information Bureau, Industrial Distributors (Sales) Ltd., 32-

34 Holborn Viaduct, London, E.C.1, 7s. 6d.

Canadian machinery and manufacturing news, Oct. 1950, p.204. 8 l.

"A supplement to a survey issued last year, containing extracts of relevant patents in Great Britain, U. S. A. and Germany, issued from 1916 to the end of 1946. The present volume considers patents issued in 1947 and 1948, supplementing the material presented before."

Machinery (London), Sept. 14, 1950, p.302. 11 l.

"Should prove of considerable value to those interested in the development of the diamond tool for the truing of grinding wheels."

Josephs, H. J. Heaviside's electric circuit theory. Ed.2. 113p. 1950. Wiley, New York, $1.25. (Methuen's monographs on physical subjects.)

Electronics, Nov. 1950, p.146, 150. ⅘ col.

"The usefulness of this monograph would be increased by the inclusion of even a modestly short table of operational expressions in an appendix. As it is, they are scattered throughout the volume and are difficult to locate. Some mention of the relation between Heaviside's operational approach and the now more generally used LaPlace transform methods would be desirable . . . Should be useful for students or engineers with some background in basic mathematics and circuit theory, and for those desiring a concise exposition of Heaviside's methods." *J. Gregg Stephenson.*

Judge, Arthur W. Carburettors and fuel systems. Ed.5. 505p. 1950. Chapman & H., London, 12s. 6d. net. (Motor manuals, v.2.)

Mechanical world, Oct. 27, 1950, p.395. ⅓ col.

"Differs from its predecessor by the addition of a chapter on the later developments in carburettors, fuels, air cleaners and the like . . . The book is Vol. II of a series of four which make up in themselves quite an encyclopædic library of reference for motor owners and users."

Kessler, Henry H., ed. Principles and practices of rehabilitation. 448p. 1950. Lea, Philadelphia, $9.

Archives of industrial hygiene and occupational medicine, Oct. 1950, p.485. ⅓ p.

"The editor . . . is one of the most experienced and capable men in the field of medical rehabilitation. He has selected 21 contributors, each with a national reputation, to cover this broad field of medical practice . . . A valuable collection of information for all dealing with problems of medical rehabilitation, including physical and occupational therapists, industrial surgeons and specialists in the field of physical medicine." *A. L. Watkins.*

Knudsen, Martin. Kinetic theory of gases. Ed.3. 64p. 1950. Wiley, New York, $1.25.

Chemical and engineering news, Sept. 25, 1950, p.3376. ⅖ col.

"Embodies three lectures delivered in the University of London in 1933 . . . Excellent and most interesting reading, but it should be supplemented with something which bridges the 17-year gap." *Henry Eyring.*

Review of scientific instruments, Oct. 1950, p.871. ⅓ col.

"Contains principally a clear and pleasing description of the author's own illuminating and important experiments on certain phenomena in gases at low pressures. The topics treated are evaporation and condensation, flow of gases through tubes, resistance to motion, thermal molecular pressure, the author's absolute manometer, and the coefficients of accommodation in relation to the conduction of heat and to mechanical reactions of the radiometer type." *E. H. Kennard.*

Lee, Douglas H. K. Physiology of tissues and organs; an introduction to the study of systematic physiology. 159p. 1950. C. C. Thomas, Springfield, Ill., $4.

Journal of the American Medical Association, Sept. 23, 1950, p.356. ⅓ col.

"In two parts. The first part deals with the blood, nervous tissue and other tissues; the second part deals with absorptive organs, storage organs and other organs of the body. The presentation is curiously vague, and the book as a whole has the effect of a barren field painstakingly divided and subdivided into vacant areas. This effect is due partly to a paucity of illustrations and partly to a lack of 'operational analysis'."

McBain, James W. Colloid science. 450p. 1950. Heath, Boston, $8 (Text ed., $6).

Chemical and engineering news, Oct. 30, 1950, p.3836. ½ col.

"For the reader who has had no background in colloid chemistry this book will probably be difficult to understand. For those who already have some knowledge in this branch of science and for those who are responsible for graduate courses in colloid chemistry it will be extremely valuable." *E. A. Hauser.*

Soil science, Nov. 1950, p.412. 11 l.

"Its 24 chapters deal with general principles, which are then applied to soaps, proteins, lubricants, textiles, sugars, rubbers, resins, clays, and aerosols. The chapter on clays deals with classification, mineral species, x-ray examination, thermal analyses, electron microscope, cation exchange, swelling, flocculation, rheology, uses of clays, and comparisons with other colloids . . . The work of some 1,200 authors is reviewed . . . Lucidly written, well illustrated, and gives an excellent presentation of the knowledge in this field."

McVittie, George C. Cosmological theory. Ed.2. 103p. 1949. Wiley, New York, $1.50. (Methuen's monographs on physical subjects.)

American journal of physics, Nov. 1950, p.531. ⅘ col.

"It might be said that Professor McVittie's book (to compare it with three of the 'classics' of contemporary cosmological theory) has not the explicit and detailed clarity of Tolman's *Relativity, Thermodynamics, and Cosmology,* the deft coherence of Robertson's 1933 *Reviews of Modern Physics* monograph, nor the speculative charm of Eddington's *The Expanding Universe.* Nonetheless, it is a useful and important book." *Richard Schlegel.*

March, C. A. Building operation and maintenance. 384p. 1950. McGraw, New York, $6.

Factory management and maintenance, Nov. 1950, p.264. 11 l.

"Every important phase of building care—management, operation, and maintenance — is

covered. You'll find out how to make office layouts, write a lease, make economies in painting and cleaning. Your maintenance men will find answers to their problems, too—putting out fires, data on plumbing, materials handling, and the like."

Operating engineer, Nov. 1950, p.99. ¼ col.

"Operating engineers in institutional plants, hospitals, hotels, office buildings, etc., whose responsibilities go beyond the power services into maintenance of the building proper may find this book useful as an introduction to the operation of the building as a whole."

Marshall, Samuel L. TV installation techniques. 330p. 1950. John F. Rider, New York, $3.60.

Radio & television news, Nov. 1950, p.201. ⅔ col.

"Probably the outstanding contribution of this text is the fact that all of the material is *practical.* The author, himself a practicing radio man, hasn't cluttered up his book with a lot of theoretical material. Everything in the book is there because it meets some need of the technician for information on the 'why's,' 'how's,' and 'wherefore's' of making a good and safe television antenna installation . . . Television technicians would do well to add this book to their tool kits as it provides all of the answers to those tricky installation problems so often encountered."

Radio-electronics, Nov. 1950, p.113. ⅓ col.

"Written for the TV installer so that he can get the most out of a set in any given location, whether it be in the city or in fringe areas. While the first three chapters discuss television, radio propagation and antennas in general terms, the rest of the book is filled with practical advice and instruction on making the best installation, even to the number of sacks of cement to use for a mast foundation." *M. W.*

Marvin, H. M., and others. You and your heart. 306p. 1950. Random House, New York, $3.

American journal of nursing, Nov. 1950, p.adv. 31. ⅛ col.

"Designed for the layman and gives a simple and concise explanation of the heart and circulatory system and some of the common diseases of the heart . . . The chief purpose of the book is to allay common fears regarding heart conditions and to give a clearer understanding of how the circulatory system functions in health and in disease." *E. B.*

Mason, Ernest, ed. Practical coal mining for miners. 2v. 787p. Virtue & Co., Ltd., Buchanan Bldgs., 24 Holborn, London, E.C.1, £3 10s.

Colliery guardian, Sept. 21, 1950, p.259. ½ col.

"Intended for the working miner, although they will probably interest many others—particularly those with little knowledge of pit work . . . There are very few photographs, but a vast number of line drawings remarkable for their clarity and simplicity. No miner could look at these drawings without learning something from them . . . A notable feature . . . is the care which has been taken to keep theoretical considerations to a minimum . . . An invaluable addition to mining literature."

Mining electrical and mechanical engineer, Oct. 1950, p.152. ½ col.

"The first edition of a comprehensive and up-to-date work which has been planned and written primarily for the miner, to enable him to obtain a fair understanding of the industry as a whole. The nineteen contributors are well qualified to write on their respective subjects, and though the style naturally varies a little, it is at all times clear and concise . . . Not only the practising miner, but the young student, the trainee, and the manufacturing specialist, should find these volumes a useful and interesting introduction to a complex industry."

Mee, F. G. Sound. 171p. 1950. Heinemann, London, 8s. 6d. net.

Science progress, Oct. 1950, p.766. 12 l.

"Those who teach physics in the upper forms of secondary schools and intermediate Science students will welcome this textbook. The author has taken care in the choice of his material both to interest the reader and to give a summary of the results of recent research. A feature is the number of illustrations both of musical instruments and of the waveforms of the sounds they emit. Though the emphasis of the book is on experiment, the author is not afraid to introduce a little theory and therein to employ the calculus . . . Not the least important parts of the book are the grouped examples, some from recognised examinations and others specially devised, which show what can be done by the venturesome examiner." *E. G. R.*

Merck & Company, Incorporated. Merck manual of diagnosis and therapy. Ed.8. 1592p. 1950. The Company, Rahway, N. J., $5.

American journal of public health, Nov. 1950, p.1454. ⅛ col.

"More than 100 clinicians have served as authors or consultants for the material which is presented in these closely packed pages, representing an amazing condensation including such up-to-date subjects as radiation reactions and injuries, antibiotic therapy, crystalline vitamin B_{12}, cortisone and ACTH. Many a health officer will welcome this quick reference in compact form as a desk companion." *Reginald M. Atwater.*

Occupational therapy & rehabilitation, Oct. 1950, p.285. 11 l.

"This volume which was over four years in preparation by more than 100 physicians is truly a handbook, for in spite of its great length it weighs only 22 ounces and its four by seven inch dimensions add to its desk top or desk drawer convenience . . . Outlines the use of antibiotics, cortisone and ACTH. Its inclusiveness is pointed up by a discussion of crystalline Vitamin B_{12}, the anti-anemia factor, which first became available for treatment last year. Other timely subjects covered . . . are radiation reactions and the antihistaminics." *S. L.*

Milne, Lorus J. Machine shop methods. 376p. 1950. Prentice-Hall, New York, $5 (Schools, $3.75).

Plant, Oct. 1950, p.64. 12 l.

"In this informative volume the basic principles and methods of machine shop tools and equipment are presented in an easy-to-read manner. The text is prepared to assist the reader to a practical understanding of both hand and machine tools and their proper methods of application."

Moncrieff, Robert W. Mothproofing. 200p. 1950. L. Hill, London, 17s.

Journal of the Textile Institute, Sept. 1950, p.P707. 1 p.

"Deals with the life history of clothes moths

and dermestid beetles, some, but by no means all, commercial mothproofing agents, the testing of mothproof finishes on textiles and the necessary cultivation of colonies of clothes moths and dermestid beetles . . . It does not cover the whole field of mothproofing in that, for practical, and indeed theoretical purposes, the mothproofing of such materials as furs, sheepskins, feathers and swansdown is ignored, the subject being treated solely from a textile viewpoint." *C. O. Clark.*

Textile world, Sept. 1950, p.332. ⅓ col.

"A good all-around reference book on the subject."

Neuschel, Richard F. Streamlining business procedures. 334p. 1950. McGraw, New York, $5.

Factory management and maintenance, Nov. 1950, p.262. 11 l.

"Here are tested techniques for organizing, planning, and administering an effective procedures program. You'll learn how to make a procedures study, how to develop procedures manuals, how to go about getting your new procedures adopted. The appendix contains a description of an interview technique that has been found effective."

Journal of accountancy, Nov. 1950, p.A-55. ⅓ col.

"*Streamlining Business Procedures* is the name and purpose of this book by Richard F. Neuschel . . . He has written this book 'to give practical, tested techniques to use as administrative tools for analyzing, simplifying, and improving business procedures'."

N.A.C.A. bulletin, Oct. 1950, *section 2,* p.231. ⅓ col.

"The case for and methods of research into paperwork procedures in plant and office form the dual theme of this book, which is directed to the simplification as well as the development of its subject and includes a considerable volume of illustrative material. Perhaps one-third of the book is devoted to the objectives of procedures research. The remainder . . . deals with the techniques of procedure analysis and improvement."

Nixon, Alfred F. Teaching biology for appreciation. 146p. 1950. Chapman & Grimes, Inc., 30 Winchester St., Boston, $3.

Science counselor, Sept. 1950, p.108. ⅓ col.

"This stimulating book is addressed to teachers of biology, but it contains hints and techniques that can well be adapted for use with the other sciences." *H. C. M.*

Science education, Oct. 1950, p.267. ½ col.

"In the first three chapters, Dr. Nixon justifies his efforts at teaching for appreciation by carefully documented support from educators, psychologists, and philosophers. The remaining chapters discuss the relation of biology and art, biology and literature, and biology and the social studies. As the author points out biology can be taught so as to bring out the beauty in nature, music, sculpture, paintings and drawings, and even the laboratory . . . Highly recommended for reading by all teachers of biology."

Nock, O. S. Scottish railways. 214p. Nelson, London, 18s. net.

Model engineer, Sept. 21, 1950, p.460. 1 col.

"Mr. Nock surveys the early history of each of the five Scottish main-line railways, and then entertains his readers to accounts of first-hand observations of the working of these lines in modern times . . . The illustrations have been very well chosen . . . A really worthy book, one which can be taken up at any time, opened at any page, read with enjoyment and then put down with reluctance. The vivid descriptions of footplate trips and the ever-present impression of keen, but restrained enthusiasm for his subject are such as to ensure that Mr. Nock's writings can never fail to give unbridled pleasure to all who love railways."

Norris, Percy W., & Legge, W. S. Mechanics via the calculus. Ed.3, revised and enlarged. 372p. 1950. Cleaver-Hume, London, 16s.

Engineering, Sept. 29, 1950, p.280. ½ col.

"It would be wrong to assume . . . that the present book, as its title might suggest, is concerned solely with problems where the calculus offers only an alternative to other methods of solution, or, indeed, that it is confined to problems of motion, for there are chapters on statics, hydrostatics, attractions, theory of beams and, in this latest edition, vector analysis . . . Good features of the book are the large number of examples worked out in the text and the many additional exercises for the student . . . Should . . . be of value as a supplement to a course of lectures. As a text-book, however, it has certain shortcomings, since fundamentals are not always clearly expounded."

Page, Sydney F. Body engineering. 188p. 1950. Chapman & H., London, 24s. net.

India-rubber journal, Oct. 7, 1950, p.16. ⅔ col.

"Deals with the history of the motor car body and with construction trends and in the former connection there are some pictures, which are amusing as well as interesting, of typical little cars of around 50 years ago. Other sections . . . are concerned with the materials used in bodywork, bodywork designing and drafting, sheet metal projection, bodywork interior and practical bodywork construction. There are many illustrations and diagrams and, at the back before the index, a constructional supplement . . . In every way a sound, practical book."

Model engineer, Oct. 26, 1950, p.646. ⅓ col.

"Here at last is a book that will fill what has been a regrettable gap in the literature relating to this all-important subject . . . Will enable both designers and draughtsmen to attain a high standard of efficiency . . . A must for all connected with this particular branch of the motor industry, and a very commendable work for those model engineers striving to produce correct scale model motor cars."

Parrack, Harry O. Contractors' plant; its organisation, operation and maintenance. 271p. 1950. Pitman, London, 25s.

Commonwealth engineer, Sept. 1, 1950, p.63. ⅔ col.

"The author . . . has embraced organisation, operation and maintenance. There are only five chapters with the following headings—plant administration; plant operation and the operator; field service and maintenance; repair workshops and major overhaul and mechanical organisation . . . Unfortunately the book is not well printed and is below modern standards in this regard . . . Strongly recommended to plant engineers, whether engaged on large or small construction projects."

Peattie, Donald Culross. Natural history of trees of eastern and central North America. 606p. 1950. Houghton, Boston, $5.

Natural history, Nov. 1950, p.432. ⅔ col.

"Should man wish to learn something about the trees that he has planted, something about their range or habit [sic], uses or history—in brief, a bit of their natural history—he should make certain that this volume . . . is available in his home library . . . This is the first in a series of several volumes which will discuss all the important species of trees (no hybrids included) of our continent north of Mexico . . . For each species of tree Mr. Peattie has given us a happy blending of accurate scientific description combined with a fascinating essay on its natural history. Each of these essays is in the author's delightful style . . . If the nature lover, whether amateur or professional, can afford but a single volume on the trees of northeastern North America, then this should be it!" *W. H. Hodge.*

Piccard, Auguste. Between earth and sky; translated by Claude Apcher. 157p. 1950. Falcon Press, London, 15s. net.

Science progress, Oct. 1950, p.764. 9 l.

"Prof. Piccard also takes us on an interplanetary rocket-propelled flight towards the end of his book, though from some things he says about the rocket one judges that his acquaintance with that 'misguided projectile' is based on Newton's laws and not on practical experience. His own sensational stratosphere balloon flights of 1931-34 occupy but a small section, the main theme being the meteorology of the upper atmosphere. Those who require a popular and entertaining account of this subject are well served herein by Prof. Piccard, ably assisted . . . by his translator." *E. G. R.*

Prescott, Frederick, & Ridge, Dudley. Organic chemistry. Ed.2. 723p. 1950. University Tutorial Press, London, 14s. 6d.

Industrial chemist, Sept. 1950, p.412. 2⅛ col.

"A general textbook which covers the elementary aspects of the subject thoroughly. In smaller print there is introduced a fair amount of more advanced knowledge, which adds greatly to the value of the work. The student of organic chemistry, studying for a University degree or in a technical college, will find this book invaluable during his first two years . . . There are, unfortunately a number of errors, some of fact, others probably of typography." *A. McGookin.*

Prince, J. H. Visual development. v.1. 418p. 1949. Williams & Wilkins, Baltimore, $9.50.

Journal of the American Medical Association, Oct. 7, 1950, p.505. ⅝ col.

"A scholarly presentation of the subject considered largely from a morphologic point of view . . . Of interest to any reader with a broad interest in the anatomic and developmental features of the organ of vision throughout the animal kingdom . . . Well written, presented in an interesting manner and contains much in the way of little known factual material . . . The author is to be congratulated on the publication of a book which may stimulate others to carry on research in zoologic optics."

Puffer, Ruth Rice. Practical statistics in health and medical work. 238p. 1950. McGraw, New York, $3.75.

American journal of public health, Aug. 1950, p.1017. ⅘ col.

"This welcome addition to the small number of textbooks on public health statistics is unique in its approach to the problem of collecting and analyzing many kinds of data for the purpose of planning and evaluating the programs of a modern health department . . . It is not so much a book on statistical methods as on the application of these methods . . . Should be equally stimulating to statisticians, health officers, and other public health workers." *Elizabeth Parkhurst.*

Ranshaw, George S. Great engines and their inventors; the story of machine power. 212p. 1950. Burke Pub., London, 10s. 6d. net.

Engineering, Oct. 13, 1950, p.300. ⅓ col.

"Consists of 200 pages of letterpress and diagrams and 20 good photographs of engines, power houses, etc., which, however, have little to do with the text . . . The text . . . is divided into two sections, one on 'The Men Who Made the Engines,' and the other on 'The Engines the Men Made'; there are 20 chapters, dealing with atmospheric engines, etc., down to atomic engines."

Steam engineer, Oct. 1950, p.34. ¼ col.

"Designed to give youth an elementary background, showing the development of motive power from the time of James Watt and Trevithick to the present era of steam turbines and gas turbines, with a final chapter on the possibility of the use of atomic energy in some form or other for power generation."

Rawlings, G. P. The slide rule in theory and practice. 127p. P. Marshall, London, 9s. 6d. net.

Model engineer, Oct. 26, 1950, p.646. ⅓ col.

"This book makes everything clear; it begins with an introductory description of the slide rule, follows on with an explanation of why the slide rule works, how it works by means of certain fundamental operations, and ends with numerous examples of the different applications of those fundamental operations. The final pages are wisely and conveniently devoted to tables of logarithms, antilogarithms, sines, cosines and tangents . . . Excepting the purely tabulated matter, there is not a dull page, for the reader's interest in firmly held throughout."

Ray, J. Edgar. Art of bricklaying. 240p. 1950. Bennett, Peoria, Ill., $4.

Occupational therapy & rehabilitation, Oct. 1950, p.285. ½ p. including another review.

"Begins with the story of brick and proceeds with such considerations as chimney construction, arch layout and laying of cement block, the latter of considerable use in the construction of a hospital greenhouse or tool shed. The concluding glossary of trade terms will permit the therapist to converse more intelligently with his ex-mason patients." *S. L.*

Reed, Howard S. Jan Ingenhousz, plant physiologist; with a history of the discovery of photosynthesis. 102p. 1949. Chronica Botanica, Waltham, Mass., $3.

Chemical and engineering news, Oct. 9, 1950, p.3536. ¾ col.

"The reprinting of Ingenhousz' work with the helpful historical and modern background added by Reed will be of value to students of

medical as well as chemical and plant physiological history." *A. A. Benson.*

Journal of chemical education, Nov. 1950, p.639. 1½ col.

"Illustrates some of the basic developments in plant physiology. Indirectly, it throws much light on the evolution of natural philosophy. It is an annotated, complete reprint of Ingenhousz' 'Experiments upon Vegetables,' first published in England in 1779 . . . In making Ingenhousz' publication more readily available and in correlating the early experiments with current results and interpretations, Dr. Reed has helped to cross-fertilize the materialistic and philosophical aspects of science." *Harold H. Strain.*

Ruhemann, Martin. Separation of gases. Ed.2, revised. 307p. 1949. Oxford Univ. Press, London, 30s.

Journal of chemical education, Sept. 1950, p.530. ¾ col.

"Incorporates changes and additions in seven of the twelve chapters thereby increasing the book by some forty-four pages. The fine printing and excellent figures as well as the quality of the paper enhance the welcome which will be accorded this excellent volume . . . The author is to be congratulated for a revised edition of a very useful and needed book." *Frederick G. Keyes.*

Saunderson, Mont H. Western land and water use. 217p. 1950. Univ. of Oklahoma Press, Faculty Exchange, Norman, Okla., $3.75.

Journal of forestry, Oct. 1950, p.726. 2½ col.

"Although the volume is divided into chapters, the components of the chapters are scrambled. There is no logical order, so that the net effect is that of flitting from one topic to another. This makes the analysis rather difficult to follow, and his main theses become obscure. The author . . . offers no documentary proof for his statements . . . There are sections of fine writing . . . but the bulk of the volume is written in a dry, blank-face style that robs the conclusions of much of their punch. Although 'water' is one-half of the title, this subject receives relatively little attention . . . Despite these drawbacks the book is loaded with interested [sic] facts and observations." *Anthony Netboy.*

Settel, Irving. Effective retail advertising. 216p. 1950. Fairchild, New York, $4.75.

Advertising age, Oct. 23, 1950, p.40. ⅝ col.

"In writing . . . 'Effective Advertising,' Irving Settel had two objectives: 1. To provide a guide for the promotional activities of the small merchant. 2. To produce a comprehensive text for the student of business and retail advertising. Mr. Settel . . . has done an excellent job in achieving his selected objectives . . . Mr. Settel writes in a terse, lucid style. He has sought, successfully, to eliminate superfluous facts and verbiage. And while admen may occasionally feel that he has over-simplified his presentation, the important information is presented so that both retailers and students of retail advertising can put the suggestions to work quickly and easily."

Jewelers' circular-keystone, Nov. 1950, p.144. ½ col.

"A common-sense approach to retail advertising procedure to serve the needs of both the small merchant and the student of advertising promotion is presented . . . Mr. Settel has covered every element of the advertising operation in a retail store from the preliminary planning and budgeting through the choice of media, preparation of copy and layout, and production . . . A retail advertising dictionary and a list of the postal regulations for the retailer complete the text."

Sherman, Henry C. Nutritional improvement of life. 270p. 1950. Columbia Univ. Press, New York, $3.75.

Practical home economics, Nov. 1950, p.504. ⅓ col.

"The advance in nutrition knowledge during the last half century has been remarkable . . . Dr. Sherman . . . gives an historical review of what has been done and points out its effects and potential effects on the human race . . . Would make interesting reading for home economists who want to enlarge their nutrition background and to gain new insight into the significance of the facts they already know . . . Might also be useful as a supplementary text for college nutrition courses." *Patricia Appleyard.*

Soil science, Oct. 1950, p.331. ⅓ p.

"The book should find a place on the shelves of all those who are concerned with the production and processing of food plants."

Shortley, George, & Williams, Dudley. Physics; fundamental principles for students of science and engineering. 2v. 1271p. 1950. Prentice-Hall, New York.

v.1. $6 (Schools, $4.50).

v.2. $7.35 (Schools, $5.50).

Military engineer, Nov.-Dec. 1950, p.505. ¼ col.

"The authors have kept in mind the needs of advanced students and of professional scientists and engineers for a reference treatment of the subject. Volume I deals with Mechanics and Heat; Volume II with Wave Motion, Sound and Soundwaves, Light, Electricity and Magnetism, and Modern Physics . . . One of the outstanding features of this well-illustrated work is the introduction of practical and theoretical problems throughout the book. An excellent text."

Product engineering, Nov. 1950, p.230, 232. ⅛ col.

"The most complete volume of physics that has come to our attention in the last few years . . . Since the book is written for the use of students who will be beginning their mathematics course concurrently with the physics course, the author starts with plane trigonometry and gradually increases the complexity of mathematical explanations. All of the subjects usually encountered in a physics course are covered in great detail, with a complete chapter given over to each of the usual physical subjects."

Siskind, Charles S. Electrical machines, direct and alternating current. 521p. 1950. McGraw, New York, $4.75.

Electrical review, Sept. 22, 1950, p.472. ⅜ col.

"Intended to provide students, who are about to leave college, with an overall picture of the theory and operating characteristics of electrical machines. An elementary knowledge of d.c. and a.c. circuits has been assumed, and the use of mathematics avoided whenever possible . . . The average student will have no difficulty in working through the book unaided,

and may check his progress by means of the numerous questions to be found at the end of each chapter. The author has produced a very readable and well-illustrated textbook." *H. B. W.*

Slater, John C. Microwave electronics. 406p. 1950. Van Nostrand, New York, $6. (Bell Telephone Laboratories series.)

Tele-tech, Sept. 1950, p.74. ⅓ col.

"Presents a unified account of the principles of wartime and post-war research conducted at the Bell Telephone Laboratories and at the Radiation Laboratory of the Massachusetts Institute of Technology . . . While fundamental in approach, the subject matter is presented at a more mathematically complete level than has heretofore been available . . . Should prove an excellent reference work for theoretical physicists and engineers interested in radar or microwaves generally."

Smith, Alexander H. Mushrooms in their natural habitats. 626p. 1949. Sawyer's, Inc., Portland, Ore., $26.50.

Scientific monthly, Nov. 1950, p.344. 1 col.

"To the average student of fungi, the possibility of producing a book of value alike to the scientist, to the interested layman with no scientific background, and to the mycophagist who prefers his mushrooms cooked, would appear to be an author's dream, too tenuous for accomplishment. With the completed project before us, however, it is obvious that Dr. Smith, foremost authority on the fleshy fungi of this country, has succeeded admirably." *Helen M. Gilkey.*

Smith, Guy-Harold, ed. Conservation of natural resources. 552p. 1950. Wiley, New York, $6.

American metal market, Sept. 15, 1950, p.2. ¼ col.

"A comprehensive coverage of our major resources, their history, geographical distribution, and regional and national use, this book emphasizes up-to-date conservation practices . . . Written by 20 leading authorities in the different resources."

Earth science digest, Oct. 1950, p.23. ⅓ col.

"The combined work of 20 men, this book is a comprehensive study of the problem of conservation—of soil, water, minerals, and other natural resources. Chapters on Conservation in the Mineral Kingdom, by W. M. Myers; The Mineral Fuels, by E. Willard Miller; The Great Soil Groups and Their Utilization, by Louis Wolfanger; and Soil Conservation, by William A. Rockie, contain much valuable reading matter. Selected references follow each chapter; a list of general works is appended."

Smith, Henry Ladd. Airways abroad; the story of American world air routes. 355p. 1950. Univ. of Wisconsin Press, Madison, Wis., $4.

American aviation, Oct. 16, 1950, p.59. ½ col.

"This story of the development of U. S. international commercial air policy represents a worthy companion volume for the author's *Airways* . . . which traced the development of air transportation within the U. S. It's a very readable case history of events, interpreted with considerable awareness of the individuals and influences which shaped American aviation policy . . . Recommended reading for all those interested in world air transportation, as well as for students of history and political science." *L. E.*

Smock, R. M., & Neubert, A. M. Apples and apple products. 500p. 1950. Interscience Publishers, New York, $7.80. (Economic crop series, v.2.)

Journal of the New York Botanical Garden, Nov. 1950, p.284. ⅔ col.

"The book is unique in its field and will fill a long felt need. It succeeds in bridging the gap between those interested in production and those interested in utilization . . . Covers not only the chemistry, physiology and processing of the apple, but also such aspects of fruit behavior and treatments prior to harvest as may affect behavior after harvest . . . Should have a wide appeal as a text and as a reference." *H. B. Tukey.*

Refrigerating engineering, Oct. 1950, p.969. ¼ col.

"Thoroughly covers the subject after harvest from the history and distribution of apples, through chemical composition of apples, to a discussion of the preparation of various apple products."

Sorrell, Stanley E. Paper base laminates. 223p. 1950. Interscience Publishers, New York, $2.75.

British plastics, Sept. 1950, p.109. ⅔ col.

"An interesting booklet, and since the author has been connected with a well-known firm of manufacturers engaged in the production of resin-treated paper, it would be expected that he could write with authority on the matters with which he has had practical experience . . . A worthy little book and the chapters based on the author's practical experience are well worth studying." *C. A. Redfarn.*

India rubber world, Nov. 1950, p.240. ¼ col.

"No comprehensive discussion of the subject has been available, particularly from the standpoint of the paper constituent. Information on the resins used in these laminates is readily available, and this monograph, therefore, gives a detailed account of the processes of paper making and only a brief review of resin manufacture . . . Many drawings, photographs, and tabular data amplify and clarify the text; while comprehensive bibliographies are given in each chapter. Both author and subject indices are appended to this monograph."

Spring, K. H. Photons and electrons. 108p. 1950. Methuen, London, 7s. 6d. net. (Methuen's monographs on physical subjects.)

Science progress, Oct. 1950, p.770. ⅘ p.

"A stimulating monograph . . . which should be very useful indeed for the research worker, either theoretical or experimental, in this field and also for those with a less specialised interest, who are anxious to get some idea of the present position in radiation physics without going too far into technical details." *E. H. S. B.*

Spurr, Josiah E. Geology applied to selenology. v.4: The shrunken moon. 207p. 1949. Business Press, Lancaster, Pa., $4.

Journal of geology, Nov. 1950, p.673. 2 col.

"Spurr again ignores a possible meteoric-impact origin for lunar surface features and further develops his thesis that they are the result of special types of volcanism and of other internal forces . . . This book is concerned with

developing the particular thesis that the moon has decreased enormously in size and ellipticity . . . Spurr has scrutinized the moon's surface with great care and has described the individual features and geomorphic pattern in more detail than has been done before. This is the first time that lunar features have been studied carefully by one trained and experienced in modern structural and igneous geology. Further, he appears to be the first to add, in any great detail, the time dimension to selenology . . . The volume has several shortcomings . . . Although Spurr has made an important contribution to the science of the moon, his speculations regarding the origin of its surface features are not convincing." *Robert S. Dietz.*

Staniar, William, ed. Plant engineering handbook. 2007p. 1950. McGraw, New York, $15.

American machinist, Nov. 13, 1950, p.252. ½ col.

"In preparation for the last seven years, this volume is a compendium of know-how from 46 companies and five universities, the information being subdivided into 35 sections . . . Combines economic, management, mechanical, chemical, and power data . . . There are hundreds of tables, and illustrations are sketches and line drawings."

Factory management and maintenance, Nov. 1950, p.262. 12 l.

"An outstanding plant engineering consultant has compiled and edited the contributions of 87 authorities in a handbook covering all major phases of plant engineering organizations, design, construction, operation, and maintenance . . . A must for plant engineers and maintenance executives. Gets right down to practical, every-day problems."

Industrial heating, Sept. 1950, p.1658. ⅜ col.

"Tells how to manage, operate and maintain industrial plants, and presents the essentials of good plant engineering practices in 77 major areas of plant operation and maintenance . . . Will meet the needs of plant managers, superintendents, engineers and maintenance engineers . . . Organized into 35 sections including plant fire prevention and protection, industrial instrumentation and control, welding, materials handling, drying, metallurgy and corrosion, heat-transfer and heat-transfer properties of materials, lubrication and others."

Operating engineer, Nov. 1950, p.98. ¾ col.

"A book that you will keep at your finger tips as a constant reference and to increase your understanding of the basic problems and best methods of running a modern plant."

Plant, Nov. 1950, p.62. ½ col.

"Engineers in all types of industries will find this handbook a most valuable and essential addition to their libraries. Written to fill a long-realized need to help solve everyday problems of organization, design, construction, operation, and maintenance in industry, this volume is intended to supplement and extend—rather than replace—the usual type of engineering handbook . . . The text is easy to read and just as easy to understand."

Steidle, Edward. Mineral industries education. 252p. 1950. Pennsylvania State College, State College, Pa., $3.

American gas journal, Nov. 1950, p.47. ⅓ col.

"Not . . . a treatise or a handbook on pedagogical methods in mineral industries education, but it is rather an extensive summation of his own philosophy on education with respect to the mineral arts and sciences."

Mineral industries, Oct. 1950, p.4. ⅝ col.

"As far as the records reveal this is the only book published anywhere on trends and objectives in mineral industries education. The study is provocative as a worth-while attempt to review the records and prospects of one phase of the Land-Grant college educational program. Dean Steidle will use the book primarily as a text for an orientation course for all new students in the School of Mineral Industries."

Oil and gas journal, Oct. 19, 1950, p.120. ⅛ col.

"A scholarly and thoughtful treatise in which philosophy is leavened with practical common sense in appraising the part education in mineral industries can play in building a better world . . . A general idea of the philosophical nature of the work can be gleaned by reading chapter titles, such as Man and Nature, Man and Man, Man and Minerals, Perfection, Human Resources, Fallacies, Material Resources, Good Earth, Faith in a Heritage, Around the Corner, and so on."

Producers monthly, Oct. 1950, p.7. ⅓ col.

"Presents a basically sound philosophy of the need for expanded education in the fields of the mineral industries . . . Divided into three parts: The Roots of Human Progress, A Philosophy for Conservation, and Wanted: Mineral Industries Colleges. While all educators will find this book of value, the layman will gain an insight into the pressing problems of our day and the ever-growing need for professionally trained people to attack these problems."

Stewart, Oscar M., & Gingrich, N. S. Physics. Ed.5. 726p. 1950. Ginn, Boston, $5.

American journal of physics, Nov. 1950, p.529. 1⅛ col.

"Eminently suitable for a freshman course for students without strong mathematical preparation, with little or no high school physics, and with small desire to pursue the subject further. For premedical students, and others whose desire is to satisfy a requirement as effectively and as painlessly as possible, it is ideal. It is not sufficiently complete nor detailed for use by pre-engineers or well-prepared physics majors. It is a straightforward and simple exposition of the principles of physics and does not pretend to have any specialty of history or philosophy of physics, or any of the other attitudes now prevalent in books of 'science in general education'—though it does have an excellent appendix article on scientific method." *Reginald T. Harling.*

Struve, Otto. Stellar evolution; an exploration from the observatory. 266p. 1950. Princeton Univ. Press, Princeton, N. J., $4.

Popular astronomy, Nov. 1950, p.475. ⅔ p.

"Dr. Struve's book . . . is based on his Vanuxem Lectures at Princeton in 1949 . . . Contains much reliable and up-to-date astrophysical information about stars, particularly about close double stars, together with some high-class surmises on the probable life history of stars. The general reader will not learn much about stellar evolution but he will get an informing close-up of an alert astronomer valiantly struggling with the problem." *Paul W. Merrill.*

Science, Oct. 20, 1950, p.477. 1½ col.

"America's foremost observing astrophysicist

here presents a most welcome book on his major field of activity over many years . . . The most serious criticism of *Stellar Evolution* concerns its lack of bibliography. There is no question but that the book will be read by every serious student of astronomy and will influence astronomical research of the next decade appreciably . . . An important contribution—it must be read by all who wish to understand the known processes whereby stars can evolve." *Fred L. Whipple.*

Sky and telescope, Nov. 1950, p.14. 2½ col.

"No one is better qualified to write on the evolution of the stars than is Dr. Struve; no one has a better knowledge of the complex array of facts which must be fitted into the framework of any serious theory . . . The amateur who is acquainted with the type of material treated in a good elementary text . . . should be able to read this work with great enjoyment and profit, as did the reviewer, who found it the most exciting astronomical book since Russell, Dugan and Stewart's classic appeared in 1927." *L. H. Aller.*

Thomas, John L. Petroleum law. 84p. 1950. Police Review Pub. Co., 5-6 Red Lion Sq., London, W.C.1, 2s. 6d.

Petroleum, Nov. 1950, p.293. ⅓ col.

"All the law relating to the storage and conveyance of petroleum spirit has been taken into account. It ranges liberally over the field of dangerous cargoes, dealing, amongst other things, with the regulations applying to compressed gas cylinders. Useful appendixes of particular interest to the garage proprietor are given . . . A useful service is provided in the publication of this work."

Thomas, W. E., ed. Railroad inspection manual; Magnaflux and Zyglo. 80p. Magnaflux Corp., Chicago, $3.

Railway age, Sept. 23, 1950, p.25. ⅓ col.

"Intended for the guidance of railroad mechanical officers and those responsible for parts inspection on the railroads . . . Prepared to furnish specific information on detail procedures to carry out the most rapid and effective inspection for location of cracks and similar defects in order to avoid failure of parts in service."

Thompson, James E. Inspection organization and methods. 369p. 1950. McGraw, New York, $5.

Management review, Oct. 1950, p.633. 1¼ col.

"To those members of industrial organizations whose exposure to inspection activities is only incidental or is restricted to close-range departmental contact, Mr. Thompson's book provides an excellent opportunity to understand fully the functions of an Inspection Department. To executives and managers, it points up the *necessity* for a sound inspection organization which includes a quality control program . . . Inspectors will find in this book a full appraisal of their functions and responsibilities." *W. J. Hall.*

Thompson, L. M. Soil fertility. 136p. 1949. William C. Brown Co., Dubuque, Iowa, $1.25.

Soil science, Oct. 1950, p.333. 10 l.

"A loose-leaf, spiral-bound set of notes employed by the author to save the student's time in class . . . The presentation is built around the soil and agricultural requirements of Iowa, but much of the material is generally applicable . . . The material is well chosen and is illustrated by graphs. A list of references is appended to each chapter. The appendix contains 9 tables of data for reference in calculations related to the several nutrients in soils, plants, and fertilizers."

Thomson, J. Radio communication at ultra high frequency. 203p. 1950. Wiley, New York, $4.50.

Electrical world, Nov. 6, 1950, p.170. 11 l.

"From his point of vantage the author has acquired a good grasp of the status of microwave progress in the U.S.A. and then proceeded to set up the mathematics of the tubes, circuits, receivers, modulators and frequency control. Treatment is confined to frequencies greater than 100 Mc/s, that is from 'metric' down to 'millimetric' wave-lengths and it should therefore fit very appropriately the needs of those who are exploring microwave relaying."

Tele-tech, Nov. 1950, p.56. ⅓ col.

"A welcome addition to the current literature on UHF. While much of the material is basic, it is of a type which will not become of less value as the years pass . . . Although the subject is handled from the British point of view (terminology etc.) it should be interesting to the American reader. A reasonable amount of theory in the form of mathematics is included, but there is also a wealth of practical matter . . . A book which is recommended reading for engineers." *J. H. B.*

Thuesen, Holger G. Engineering economy. 501p. 1950. Prentice-Hall, New York, $6.65 (Schools, $5).

Plant, Nov. 1950, p.62. ¼ col.

"Much emphasis is given . . . to the fact that the forerunner of engineering application is economic feasibility. Thus one of the basic purposes of the text is to assist the engineer to develop an attitude that will cause him to approach engineering problems with regard for their economic as well as physical implications. Engineering Economy aims at the extension of quantitative thinking to situations embracing engineering and economic factors. Numerous approaches and methods of analyses are presented, most of which are illustrated by concrete examples."

Product engineering, Oct. 1950, p.218, 220. ¾ col.

"In general, this book aims at the extension of quantitative thinking to situations embracing engineering and economic factors. Numerous approaches and methods of analyses are presented, most of which are illustrated by concrete examples. Methods and concepts are in many cases further illustrated in graphic form."

Trimmer, John D. Response of physical systems. 268p. c1950. Wiley, New York, $5.

Electric light and power, Oct. 1950, p.146. ¼ col.

"Will be of great interest not only to engineers and applied physicists, but also to anyone who has a broad concern with system response and can profit from a study of the successful application of mathematics to physical systems."

Electrical world, Sept. 25, 1950, p.156. ⅛ col.

"Any engineers who wish they had had longer association with fundamentals of physics before they plunged into technical specialization will appreciate this book . . . Presents a degree of

mathematical unification of the branches of engineering by taking samples from thermodynamics, hydraulics, radioisotopic production, nucleonic reactors, transients, stability, feed back, etc. for analysis through differential equations."

Waksman, Selman A. The actinomycetes; their nature, occurrence, activities, and importance. 230p. 1950. Chronica Botanica, Waltham, Mass., $5.

Chemical and engineering news, Oct. 30, 1950, p.3836. ⅝ col.

"Will prove a welcome addition to the workshelf of bacteriologists and mycologists generally, and will represent an essential tool for that growing group of investigators interested in the field of antibiotics. A wealth of information has been brought together in most readable form." *Kenneth B. Raper.*

West, T. F., & Campbell, G. A. DDT and newer persistent insecticides. Ed.2, revised. 631p. 1950. Chapman & H., London, 50s. net.

Chemical age, Oct. 14, 1950, p.544. 1⅛ col.

"Consists in the main of a collection of abstracts of reports on work carried out with DDT; it contains vastly more information than did the first edition, but it has necessarily become much less 'readable' . . . The book would have been more valuable if the work it summarises had been critically reviewed . . . As it is, Dr. West and Mr. Campbell have provided a standard reference book on DDT which will perform useful service to biochemists and entymologists [sic] throughout the world." *R. W. M.*

Chemical trade journal and chemical engineer, Oct. 6, 1950, p.795. 1 col.

"Will inevitably continue to be the first source of reference for information on any of the aspects of DDT."

Wightman, William P. D. Growth of scientific ideas. 495p. 1950. Oliver, London, 25s. net.

Nature, Sept. 30, 1950, p.532. 1 col.

"An important and valuable work . . . Divided . . . into two parts—'Matter and Motion' and 'Nature and Life'. The first part . . . deals with the scientific ideas leading up to the Copernican Revolution and later the Newtonian, and ends with a masterly survey of the power of physical analysis. The second part leads to the Darwinian Revolution . . . The illustrations are well chosen and well produced, and the value of the work is enhanced by a list of sources at appropriate intervals throughout as well as a general bibliography at the end. A short 'Chronology' and a separate name and a subject index are in keeping with the author's characteristic attention to detail."

Science progress, Oct. 1950, p.792. ⅜ p.

"An attempt to introduce the well-grounded general reader to the history of science through a discussion of the dominant scientific ideas as they have developed and interacted through the ages. While not claiming to be a comprehensive history, it does, in fact, contain much information, clearly set out, concerning the growth of both physical and biological science . . . The illustrations are well chosen, and there are useful bibliographies and a chronological table." *A. A.*

Wilkes, Gordon B. Heat insulation. 224p. 1950. Wiley, New York, $4.

Heating, piping & air conditioning, Oct. 1950, p.206, 208. ⅝ col.

"Designed to bring together in one volume some of the miscellaneous information on heat insulation. No attempt is made to produce a textbook, although the material should prove valuable to students of heat insulation."

Plant engineering, Oct. 1950, p.90. ⅛ col.

"An unusual feature . . . is the manner in which the author has been able to transform the usually theoretical into the highly practical. Professor Wilkes has also done an extremely comprehensive job on collection of information covering reflective insulation . . . Practically anyone who has to deal with the application of heat insulation will find this book of value."

Refrigerating engineering, Oct. 1950, p.969. ¼ col.

"Written by the well known authority on heat engineering . . . and assembles under one cover the information on heat insulation that has been scattered throughout varied, unrelated sources . . . Liberally illustrated with graphs and figures, many of which can be found only in *Heat Insulation.*"

Williams, K. A. Oils, fats and fatty foods; their practical examination. Ed.3, revised. 500p. 1950. Churchill, London, 63s.

Analyst, Sept. 1950, p.505. 1⅛ p.

"Dr. Williams is to be heartily congratulated not only in his comprehensive and thorough revision of the original work, and on the additional data that bring the book up to date, but also on the inclusion of so much new and valuable information based on his own extensive commercial experience. One effect of this is that the sub-title reference to the practical examination of fatty foods takes on a new meaning. The methods as set out are, of course, practical as any other analytical methods are practical, but the issue of this book is rather in effect the practical examination of the results of analysis, a somewhat different matter." *George Taylor.*

Wright, Forrest B. Electricity in the home and on the farm. Ed.3. 380p. 1950. Wiley, New York, $3.96. (Wiley farm series.)

Electrical world, Oct. 9, 1950, p.196. ⅛ col.

"More advanced information replaces much of the elementary material of previous editions . . . Divided into two parts. The first consists of 12 chapters on the fundamentals of electricity and its applications. The second is a series of practical exercises in using the information of the first. Although . . . designed with the needs of the teacher in mind, the subject matter should be equally useful to the average householder and farmer."

Zweng, Charles A. Flying the omnirange. 101p. 1950. Pan American Navigation Service, 12021 Ventura Blvd., N. Hollywood, Calif., and Weems System of Navigation, Annapolis, Md., $4.

Skyways, Dec. 1950, p.61. ⅝ col.

"Provides a simple and practical text on the use of the new VHF radio navigation facilities now in operation in all parts of the country, or in final stages of development . . . Written for the average pilot, and not for the technician."

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Including titles of anonymous works

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Errata in Volume 16

The following entry (accurately copied from the review itself) is incorrect, and has been corrected in making the Author Index.

For "**Clark**, George, and others. Quantitative chemical analysis" (p.64) read **Clark**, George L., and others. Basic course in the theory and practice of quantitative chemical analysis.

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